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ABSTRACT

This report on physician manpower and medical education was prepared jointly by the Council on Medical Education and the Council on Health Manpower, and was adopted by the AMA House of Delegates. It discusses: (1) the AMA's concern for, but noninvolvement in the number of students admitted to medical schools; (2) general considerations of manpower shortage; (3) the magnitude of the manpower shortage; (4) means for increasing the production of physicians; (5) reasonable expectations for physician production; (6) increasing the production of black and other minority group physicians; (7) increasing the production of women physicians; (8) financial problems of and financial support for medical schools; (9) utilizing physician support personnel; and (10) maintaining physician competence. Recommendations are made regarding: (1) the AMA Policy on Physician Production; (2) expansion of enrollments; (3) support of the Educational Council for Foreign Medical Graduates; (4) development of programs for the production of family physicians; (5) the location of medical schools; (6) the need for multiple sources of financial support; (7) the need for increasing student loan and scholarship programs; (8) support of continuing medical education; (9) and (10) continued AMA support for physician support personnel and maintenance of professional competence. (AF)

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A REPORT ON

PHYSICIAN MANPOWER AND MEDICAL EDUCATION

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American Medical Association

June 1971

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PHYSICIAN MANPOWER AND MEDICAL EDUCATION*

Recommendations

Subject	Page
1951 Policy on Physician Production	3
Expanding Enrollments	11
Support of ECFMG	15
Need for Family Physicians	16
Location of New Medical Schools	20
Multiple Sources of Financial Support for Medical Schools	26
Student Loans and Scholarships	27
Support for Continuing Medical Education	27
Significance of Physician Support Personnel	29
Maintenance of Professional Competence	34
Summary of Recommendations	38

* This report has been prepared jointly by the Council on Medical Education and the Council on Health Manpower, with assistance from the Council on Medical Service; approved by the Board of Trustees; and adopted by the AMA House of Delegates in June 1971.

Summary of the Report

There is increasing public awareness of the need for more physicians. Since June of 1951, the American Medical Association has operated under a House of Delegates policy entitled, "Policy of the American Medical Association Regarding the Production of Physicians." This position states that the Association does not regulate the size of the national student body of medicine. The number of students admitted to individual schools is determined by the faculty's administrative officers and governing boards in accordance with the school's educational philosophy and consistent with its educational resources.

There is agreement that the demand for health services exceeds supply. The problem of satisfactory delivery of health services is complex. The number of physicians available to provide care is but one of many elements. Some problems frequently cited as evidence of need for more physicians are partially, or completely, independent of physician numbers. The public should be aware that increasing the physician population alone will have little effect on such problems.

Projections of the number of physicians required are difficult to make. Goals articulated by the Surgeon General's Consultant Group on Medical Education (Bane Report, 1959) have been achieved, exceeded, or appear to be within reach before the 1975 deadline. The present growth rate of the general population is approximately 1 percent per annum. The growth of the physician population is almost 3 percent per annum. Maintenance of these differential rates should lead to a better physician-to-population balance.

The most immediate means of augmenting production of physicians is to increase enrollment in medical schools. Most existing medical schools have made substantial increases and anticipate still further expansion. Growth has been impeded by delay in federal funding under existing legislation and by delay or restriction in operational support from state legislatures.

Many schools are shortening their programs to three years. Approximately one-third of American medical schools now offer, or are seriously considering, a three-year program for all, or part, of each class.

Five new medical schools are expected to open in the fall of 1971, five more in the fall of 1972. By 1972, there will be a total of 113 medical schools with students enrolled. It is likely that there will be as many as 120 medical schools by 1980.

Graduates of foreign medical schools play an important role in supplementing United States physician numbers. A significant portion of the physician population increase has been accounted for by foreign medical graduates. Evidence points to increasing numbers of foreign medical graduates coming into the United States. American citizens studying in foreign medical schools are a special concern. No accurate count is available, but it is estimated there are more than 3,000 American citizens studying medicine abroad.

The majority of medical school graduates pursue further education. This additional period of training ranges from two to six years. Graduates who elect further education are providing a substantial volume of medical services. Testimony of this fact is the growing dependence of the urban medical center on its resident staff.

Physician shortage is one of geographic and specialty maldistribution as well as of numbers. The basic public need is for comprehensive personal care, a family physician. Success of family physician programs requires significant reorientation of medical education and changes in the attitudes of the medical community. Substantial financial resource and incentive are essential.

By 1975, the effect of programs of national health insurance and other factors which influence demand may be clarified and the continued difference between the rate of physician and general population growth should become more apparent.

The Center for Priority Analysis of the National Planning Association projects a need for 402,000 physicians by 1975. This figure was reported in a special Department of Labor study entitled, "Manpower Requirements for National Objectives in the 1970's." It is based on an analysis of demand. As noted in the Report, our present annual growth rate in numbers of physicians will bring us to 395,000 by the end of 1975. This could be easily increased with additional effort.

In the past, the determination of the number and the location of new medical schools has been primarily a matter of local initiative by a university, a medical society, or a community. Of the new medical schools now in development, about half are in communities which probably would not have been selected by the Carnegie Commission, and presumably not by other suggested national planning bodies. It is common for local initiative to develop in unexpected places. Local support is an extremely important factor in the successful development of medical schools.

Adequate representation of minority groups in the medical profession and in medical school enrollments has been and will continue to be of concern to the AMA.

Women seeking a career in medicine face discouragements and handicaps. AMA believes there is a need for more women physicians.

Because of financial pressure, many medical schools border on crisis. Schools are being asked to make substantial increases in their enrollments. At the same time, they are being asked to provide more public service, develop new educational programs, and expand opportunities for the disadvantaged. These pressures are coupled with general inflation. Reductions have been made in the level of research and overhead support. Many schools have been forced to utilize their endowment and reserve funds.

Utilization of related health manpower has an important impact on the number of physicians needed. Cognizance is taken of the present and potential role of related health personnel in extending physician services.

The major goal of medical education is the production of well-qualified physicians equipped to provide optimal care for the public. The AMA, historically, has had as a primary objective the improvement of professional medical competence. It is recognized that new efforts and methods are periodically required to achieve this goal.

PHYSICIAN MANPOWER AND MEDICAL EDUCATION

A Report to the American Medical Association
House of Delegates

June, 1971

I. Introduction and Background

This report on the status of physician manpower, the first of a series on health manpower, is prepared for the House of Delegates of the American Medical Association. Produced jointly by the Council on Medical Education and the Council on Health Manpower, with assistance from the Council on Medical Service for areas pertaining to the delivery of health services, the report embraces elements of previous AMA statements. The Report of the Carnegie Commission on Higher Education,[1] the AAMC Proposal of a Bicentennial Anniversary Program for the Expansion of Medical Education[2] and President Nixon's Health Message of February, 1971[3] are considered where they relate to specific aspects of this report.

Major attention has been given to health manpower over the past few years by the AMA House of Delegates and Board of Trustees. The Council on Health Manpower, which evolved from a special committee and a prior commission, has issued regular reports on various facets of manpower problems since it was established in 1968. Similarly, the Council on Medical Education has been charged with the responsibility of providing a continuing supply of well-qualified physicians for the health care of the American public. This Council has regularly reported to the profession and the public on the status of medical education in the United States in the annual Education Number of JAMA, the most recent being the 70th Annual Report.[4] Table 1 presents the official charges of these two AMA Councils.

There has been increasing public awareness of the need for more physicians. The policy of the American Medical Association regarding the production of physicians has frequently been misunderstood. Since June, 1951, the American Medical Association has operated under a policy adopted by its House of Delegates entitled, "Policy of the American Medical Association Regarding the Production of Physicians."[5] Part of the actual text is quoted below to assist in clarifying the essence of the AMA position:

> "Discussions of the supply of physicians in the United States in recent years have sometimes implied that the American Medical Association, through its Council on Medical Education and Hospitals, seeks to limit the supply of physicians in this country by limiting the number of medical schools it approves, by curtailing enrollments in schools it approves, or by otherwise preventing expansion of the nation's facilities for the training of physicians. It is important that there be a clear understanding of the policies of the American Medical Association in this area.

TABLE 1: COMPARISON OF THE CHARGES OF THE COUNCIL ON MEDICAL EDUCATION AND OF THE COUNCIL ON HEALTH MANPOWER

COUNCIL ON MEDICAL EDUCATION

Reports to: The AMA House of Delegates

1) To study and evaluate all phases of medical education including the development of programs approved by the House of Delegates for the provision of a continuing supply of well-qualified physicians;

2) To study and evaluate education relating to the health professions and services important to medicine, including the development of programs approved by the House of Delegates, for the provision of a continuing supply of well-qualified personnel in these areas.

3) To inform the House of Delegates as well as state and component societies on these matters and on the problems and developments in these areas;

4) To make suggestions as to the means and methods by which the American Medical Association may best influence education in medicine and in the health professions and services important to it; and

5) To carry into effect such suggestions as may be made to the Council by the House of Delegates.

COUNCIL ON HEALTH MANPOWER

Reports to: The AMA Board of Trustees

a) Define national manpower goals, to recommend measures to meet these goals, and to estimate the resources needed to realize them.

b) Furnish leadership in the solution of the problem of the drastic shortage of health manpower that is confronting the American people.

c) Encourage studies to determine ways of improving all services for patients and to consider and evaluate innovations in the organization of health services that might contribute to better utilization of existing personnel.

d) Clarify roles of various members of the health team.

e) Identify and define existing and emerging groups now engaged in activities related to health care.

f) Assess manpower needs in the health related fields.

g) Cooperate in the recruitment of health related personnel.

h) Review the professional and legal qualifications of health related personnel.

i) Resolve jurisdictional problems.

j) Maintain liaison with the Council on Medical Education in its responsibilities for the development, evaluation, and accreditation of educational programs in the health related professions.

"The American Medical Association has no desire to limit the production of properly trained physicians to serve the American people. The policy of the Association is to assist and encourage any responsible group or institution endeavoring to create new facilities or expand existing facilities for the training of physicians.

"The number of medical schools approved is determined entirely by the ability of schools to meet acceptable educational standards. All medical schools in operation in the United States at present are fully approved by the American Medical Association.

"The Association does not attempt to regulate the size of the national student body in medicine. The number of students admitted to individual schools is determined by the faculties, administrative officers and governing boards of each school, in accordance with the school's educational philosophy and its own judgment of its educational rescurces...

"The number of medical students in approved schools has been steadily increasing... The American Medical Association has lent every aid and encouragement to this sound expansion. In many states the medical societies have provided effective leadership in the establishment of new medical schools and the expansion of existing schools."

RECOMMENDATION

It is recommended these principles from the 1951 "Policy of the AMA Regarding the Production of Physicians" be reaffirmed.

II. General Considerations of Manpower Shortage

Many factors in addition to the production capacity of medical education affect the availability of health services. Among these are geographic and specialty maldistribution in relation to health service needs, poor utilization of the skills of presently available manpower, inefficient organization modalities for providing care, and the continuing introduction of new health occupations into the manpower mix. Allied health manpower includes all those professional, technical, and supportive workers in the field of patient care, community health, public health, environmental health, and related health manpower who engage in activities that support, complement, or supplement the professional functions of practitioners of medicine. Their impact in extending physicians' services is considerable.

There is general agreement by the public and the medical profession that demand for health services exceeds supply. While many categories of health personnel are needed, the shortage of physicians seems most critical. Evidence of shortage is manifold: (1) most practicing physicians are overworked and are struggling to keep up with patient load, (2) many towns and counties have inadequate access to physician services, and (3) there is an unmet demand for physicians to fill positions in teaching, administration, research and practice.

The problem of satisfactory delivery of health services is complex and the number of physicians available to provide care is but one of many elements. The geographic and specialty distribution of physicians is an important variable in the need for physician services. If physicians were rearranged so that there were a more even distribution throughout the population, and if a greater percentage of physicians were engaged in the delivery of primary care, the delivery of health services would almost certainly be improved and the public perception of a shortage of physicians would be much less striking.

The complex nature of medical and health needs makes it difficult to determine exactly how many physicians are needed. There are some problems frequently cited as evidence of need for more physicians which are partially or completely independent of physician numbers. The public should be aware that merely increasing the physician population will have little effect upon such problems. Several of these problems are worthy of brief mention:

Infant Mortality: The American Medical Association recently released a statement on the subject of infant mortality and the problems of international comparative statistics.[6] This statement notes that the level of infant mortality is only partially a function of the number of physicians and the quality of care which they provide. Of prime importance are social and economic conditions, racial and ethnic problems, housing, and the level of public education and sophistication.

Life Expectancy: As with infant mortality, it is difficult to make international comparisons even assuming that life expectancy statistics are valid and comparable. It is necessary first to determine causes of mortality before estimating the effect of increased number of physicians. Socioeconomic conditions are critical. Poverty is cited as a cause of reduced longevity. However, national affluence is as responsible for unfavorable mortality statistics as is poverty. Heart disease continues to be the major cause of death in the United States; the overabundant diet and sedentary habits of the average affluent American with available physician services must be considered. From another perspective, over 55,000 people have been killed in automobile accidents during each of the past several years, a figure which is far above that for any other nation. The effects of tobacco, alcohol, drugs, air pollution and the frantic pace of modern society have impact on all sectors of society. Such illustrative factors are relatively independent of physician numbers and are not likely to be affected by substantial increases in physician production alone.

Health Care in the Slum: Shortage of physicians is often cited as the reason for poor health care in the slum. It is true that there are low concentrations of physicians in the large urban slums just as there are low concentrations of all types of professional and business services. Slums are products of poverty, ignorance, and racial and ethnic problems; nobody lives in them willingly, least of all their permanent residents. As long as such social evils exist, some method must be found to provide medical care for slum residents, but society's main goal should be to get rid of the slum. Increasing the number of physicians will by no means solve the problem of the slum.

Health Care in Rural America: AMA's Council on Rural Health has for many years wrestled with the problem of providing physician services in sparsely settled communities. As with the slum, it is difficult to persuade physicians and their families to live and work in rural areas. The decline in population and in provision of other categories of business and professional services demonstrate the difficulty of influencing people to live and work in rural America. The problem may be affected somewhat by increasing the number of available physicians, but broader and more fundamental solutions must be found for the basic needs of these areas.

The Shortage of House Officers: For the 1969-1970 academic year, there were 60,354 positions available in all United States internship and residency programs; 12,407 positions were unfilled.[7] Such figures are often misinterpreted as evidence of a physician shortage. Internships and residencies are educational opportunities available to medical school graduates as an integral component of professional preparation. Service to patients is a by-product of the training of house officers, but not the primary reason for its existence. Hospitals which offer internships and residencies are offering them as educational programs and not to provide service. This position has been reaffirmed repeatedly by the House of Delegates. To be consistent with this basic educational *raison d'etre* it is inappropriate to speak of a "shortage" of interns and residents in a hospital just as vacant seats in a classroom do not imply a shortage of students. It is desirable that the number of internship and residency positions exceed the number of persons to fill them in order that medical school graduates might have choice in graduate medical education.

III. Magnitude of Manpower Shortage

Projection of the exact number of physicians needed to relieve current shortage is not possible. Former U.S. President Lyndon B. Johnson in 1967 estimated the physician shortage to be 50,000.[8] The basis for the estimate is unclear. It has been quoted and requoted until it has become generally accepted by the public and the profession. There has been a net increase of over 25,000 additional physicians since President Johnson first gave this estimate, but reference to the 50,000 figure persists.[9]

The impossibility of estimating shortages within individual medical specialties is obvious. Needs of the various specialties are interdependent; e.g., the need for obstetricians, or for pediatricians, would be modified by substantial changes in the numbers of family physicians. The same can be said of surgeons and gynecologists. Total medical care needs cannot be extrapolated reliably from the perspective of an individual specialty.

The Bane Report: National goals have not been identified since the October, 1959 Report of the Surgeon General's Consultant Group on Medical Education (Bane Report).[10] The group concluded that "An increase in graduates sufficient to maintain the present (1959) ratio of physicians-to-population is a minimum essential to protect the health of the people of the United States." To maintain the ratio, it was estimated that 330,000 doctors of medicine and osteopathy would be needed by 1975, and an annual graduation of 11,000 medical and osteopathic students by that date. This increase called for the establishment of 20 to 24 new two-year and four-year schools.

The total of 330,000 doctors of medicine and osteopathy was exceeded in 1968. By the end of 1970, there were 334,044 doctors of medicine and approximately 14,000 doctors of osteopathy, a total of 348,000 physicians. This number also exceeds "an adjusted Bane Report figure" of 346,000 identified as a result of an agreement reached in 1963 among agencies of the federal government and various national organizations regarding the categories of physicians which would be included in the "total count."

The goals announced in the Bane Report have all been achieved, exceeded, or appear to be within reach before the 1975 deadline. In 1959, there were 85 medical schools with students enrolled: 79 four-year schools, 4 two-year schools, and 2 schools in development. Today there are 103 medical schools with students enrolled: 87 four-year schools, 6 two-year schools, and 10 schools in development. In addition, 5 new schools are planning to accept students in the fall of 1971 and an additional 5 in the fall of 1972.[4] It is now clear that the Bane Report goal of 20 to 24 new schools (for a total of 105 to 109) will easily be exceeded before 1975.

With regard to capacity of medical school production, in 1970 there were 8,367 M.D. graduates and 430 D.O. graduates, a total of 8,797. In the fall of 1970, 11,360 students were admitted to medical schools and approximately 600 to osteopathic schools. Current enrollment projections are such that a figure of 15,000 first-year students should be reached by 1974 or 1975. From these statistics it is apparent that the figure of 11,000 medical graduates should easily be reached by 1974 or 1975.

Physician-Population Ratios: Physician-to-population ratios have inherent weakness. They do not account for the nature of physician activities nor physician distribution. Ratios have some usefulness in representing the numerical relationship between total physician population and total general population and provide an index to manpower progress. This index is encouraging. At the time of the Bane Report in 1959, the "adjusted" physician totals applied to the population count showed a ratio of 149 physicians to 100,000 population. As of December 31, 1970, with a physician population of 348,000 and a total population of about 210,960,000, the ratio had increased to 165 per 100,000.

TABLE 2: COMPARISON OF INCREASE IN PHYSICIAN POPULATION WITH INCREASE IN GENERAL POPULATION, 1963-1970

End of Year	GENERAL POPULATION Total	Growth Rate Over Previous Year	PHYSICIAN POPULATION (M.D.) Total	Growth Rate Over Previous Year	Total Physicians (M.D.&D.O.)	Physicians per 100,000 Population (M.D.& D.O.)	Net Increase Over Previous Year (M.D.)	Cumulative Net Increase Since 1960 (M.D.)
1963	194,169,000	1.4	276,475	2.9	289,188	149		
1964	196,858,000	1.4	284,224	2.8	297,089	151	7,749	7,749
1965	199,278,000	1.2	292,088	2.8	305,115	153	7,864	15,613
1966	201,585,000	1.2	300,375	2.8	313,559	155	8,287	23,900
1967	203,708,000	1.1	308,630	2.7	322,045	158	8,255	32,155
1968	205,758,000	1.0	317,036	2.7	331,036*	161	8,406	40,561
1969	207,913,000	1.0	324,942	2.5	338,942*	163	7,906	48,467
1970	210,960,000	1.5	334,028	2.8	348,028*	165	9,086	57,553

* Estimating 14,000 Osteopathic Physicians

Table 2 shows the progress of the physician-to-population ratio from 1963 to 1970. The rate of growth of the population has been dropping steadily in recent years and over the past few years has been slightly over 1 percent per year; the rate of increase of numbers of physicians is averaging just under 3 percent per year. Future projections of population growth are difficult. Many demographers believe that the net U.S. growth rate is likely to continue to fall. Meanwhile, medical school enrollments have begun to increase substantially and it seems likely that the rate of growth of the physician population will increase to 3 percent per year or more. These differential rates of growth will inevitably lead to a better balance of physician supply, but it is difficult to determine how long it will take to achieve an optimal equilibrium.

Demand for Health Services: Public demand for health services is steadily increasing. This demand will require greater numbers of physicians. If one assumes some form of national health insurance, it seems probable that demand will continue to stress supply for the immediate future.

By 1975, the effect of national health insurance and other factors which influence demand will be clarified further and the continued differential growth rates of physicians and general population should become more apparent. In 1975, it should be possible to assess the impact of expanded physician production and determine whether additional adjustments are necessary. Given many such rapidly changing conditions, projections for a five-year period appear to be best, with a reevaluation of all factors at such intervals. For the first half of this decade, intense efforts to increase the production of physicians are needed. All of the plans now under way for expansion of existing medical schools and for the development of new schools are in order.

IV. The Production of Physicians

Medical School Enrollments: The most immediate means of increasing physician production is to enlarge the enrollments of existing medical schools. With the combined encouragement of the AMA, AAMC, federal government, state governments, general public, faculties, and student bodies, most medical schools are giving serious attention to increasing their student capacity. Most have made increases and anticipate still further expansion. Growth has been impeded by a delay in federal funding under existing legislation or by delay and restriction in operational support from state legislatures. Production of physician manpower is dependent upon funding by state legislatures, to an increasing degree by the federal government, and to a lesser degree by private sources. Considerably more could have been done under existing federal legislation if the full amounts authorized by the Health Manpower Act of 1968 had been spent. For the past four years, representatives of AMA and AAMC have testified repeatedly and vigorously in favor of full appropriation and spending of the amounts authorized by legislation. In each year, the amount appropriated has been substantially less than that authorized by the legislation.

Expansion of enrollment in an existing medical school takes place upon a given operational base. Consequently, the cost of the expansion at each individual school is a function of its costs. This cost of expansion varies from school to school, reflecting a wide range of variance in operating costs. At some institutions with extremely high operating costs, it is probably not a reasonable use of public funds to provide financial assistance for increasing their enrollments.

Some advocate immediate doubling of medical school enrollments. It is implied that this could be carried out relatively easily simply by crowding twice as many students into classrooms and laboratories or by operating with two "shifts" of students. Close inspection reveals that this is an unreasonable proposal for most schools. Many schools are already utilizing their maximum resources. Faculty manpower is assigned a myriad of duties other than those of teaching undergraduate medical students: the teaching of interns, residents, fellows, graduate students, allied health students, and continuing education students, as well as administrative duties and research. All are important functions of the modern medical center.

There is a "marginal zone" where modest increases in class size may be brought about at relatively modest costs. Many institutions have already expanded to the limit of this zone. In all probability, there are few schools which can even accomplish a 25 percent increase without major changes. Costs of enrollment increase in any institution will rise significantly as the marginal zone is passed and new construction becomes necessary.

Physical space and resources are prime factors in ability to expand at justifiable costs. At some institutions, substantial expansion is possible at relatively low construction and renovation cost. Complete replacement of the physical plant would be necessary to permit significant expansion at other institutions. Even relocation would be required for a number of schools.

A significant gain in enrollment is a reasonable expectation. Table 3 presents the growth in enrollments and graduates since 1960. The rate of increase has developed substantially since 1966. Because of the time lag between first-year enrollment and graduation, the increase in graduates is just now beginning to be appreciated. The total increase since 1960-61 has been 41.7 percent for first-year enrollment and 33.9 percent for graduates.

These enrollment increases which are now beginning to be realized represent years of planning and development by American medical schools. Federal funds for support of construction first became available in 1963; for support of general operations in 1965. Special incentives for expansion were made available in the Health Manpower Act of 1968 and supplemented with the Physician Augmentation Program in 1969. Each piece of legislation has had a positive effect in stimulating schools to expand facilities and increase enrollments. In each case, a lag time of two or three years has been evident before the full impact of the supporting legislation was realized. This delay in time is partly because of the time required by the schools for planning and development, but also because actual funding was delayed and incomplete. Again, substantially greater progress could have been made had full funding of the legislation been available.

TABLE 3: AMERICAN MEDICAL SCHOOL ENROLLMENTS AND GRADUATES, 1960-71

Year	No. of Schools	First Year Enrollment	Total Enrollment	Graduates	Rate of Increase: First Year No.	First Year %	Total No.	Graduates No.	Graduates %
1960 - 61	86	8,298	30,288	6,994					
1961 - 62	87	8,483	31,078	7,168	185	2.2	790	174	2.5
1962 - 63	87	8,642	31,491	7,264	159	1.9	413	96	1.3
1963 - 64	87	8,772	32,001	7,336	130	1.5	510	72	1.0
1964 - 65	88	8,856	32,428	7,409	84	0.9	427	73	1.0
1965 - 66	88	8,759	32,835	7,574	(-97)	(-1.1)	407	165	2.2
1966 - 67	89	8,964	33,423	7,743	205	2.3	588	169	2.2
1967 - 68	94	9,479	34,538	7,973	515	5.7	1,115	230	3.0
1968 - 69	99	9,863	35,833	8,059	384	4.1	1,295	86	1.1
1969 - 70	101	10,401	37,669	8,367	538	5.4	1,836	308	3.8
1970 - 71 *	103	11,306	40,377	8,996	905	8.7	2,708	629	7.5
1971 - 72 *	108	11,762	43,143	9,363	456	4.0	2,766	367	4.1
Total Increase Since 1960-61:					3,464	41.7	12,855	2,369	33.9

* Estimates

Plans call for existing schools to increase enrollments by an additional 25 percent during the next five years. The estimate of combined first-year enrollment by the schools which had students in attendance for the 1969-1970 academic year is approximately 13,000 for the 1974-1975 academic year. This projection is modest and will very likely be exceeded. Recent experience has shown that actual enrollments exceed projections by several hundred students.

RECOMMENDATION

It is recommended that the AMA continue to use its influence to encourage all reasonable expansion of student enrollments in existing medical schools.

Accelerated Programs: During World War II all American medical schools mobilized an accelerated program and a new student class was accepted every nine months. This resulted in the graduation of four classes each three years. In 1944, two classes were graduated, each exceeding 5,100 students. This was the only year in which two separate classes were graduated although the graduating classes of 1946, 1947, and 1948 were all larger than they would have been had accelerated programs not been in operation.

Immediately after World War II, most schools returned to their pre-war schedule. The AMA in the 1945 Education Number[11] suggested it would be desirable to continue the experiment of medical school acceleration under the more favorable peacetime conditions. Had medical schools remained on the acceleration format, there would have been graduated an additional 55,000 physicians to the present date, assuming the same rate of growth of enrollment as has taken place since that time. Ironically, this number is somewhat greater than the popular estimate of the physician shortage.

Today a World War II type program is impractical. At that time implementation was relatively simple; most schools had a three-month summer vacation. Classrooms and laboratories were empty and the faculty had few summer responsibilities. Today the medical school operates year-round. In most schools, third and fourth years are at least 11 months in duration and in some schools this is true for the second year as well. Most faculties are on full calendar year assignments.

Many schools are shortening programs to three years, admitting one new class each year. Approximately one-third of American medical schools offer or are seriously considering a three-year program for all or part of each class. At many other schools the fourth year is partially or entirely elective and may be spent in the equivalent of an internship experience. The effect of the three-year program on the manpower supply is to provide a "one-shot" infusion of graduates into the manpower pool. With increasing first-year enrollments, there is also the advantage that the larger numbers of entering students would reach graduation sooner than they would in a four-year program.*

*NOTE: Assume, for example, the entire fall of 1971 entering class were to graduate in three years. This would mean that in June of 1974 an "extra" class of 11,000 students would be graduated; the four-year class which had entered in the fall of 1970 would also graduate at the same time. From that time on, assuming that all schools stayed on the three year program, they would continue to graduate the normal one class per year, but the 11,000 "extra" graduates would, of course, remain in the pool permanently.

There are certain social benefits to acceleration: medical students (1) would graduate at an earlier age, (2) would have an extra year of life to practice and consequently an extra year of service to the community, (3) would save a year's cost of medical education, and (4) would benefit from an extra year's income. Prospective students would probably find a medical career even more attractive if the length of the training program were reduced.

Conversion to a three-year program is not accomplished without problems for the institution. Many are solving these problems and many others are expected to follow suit. The proposal for federal capitation support in President Nixon's Health Message would provide incentives for schools to shorten programs since the level of capitation support would be fixed at $6,000 per graduate. With no specification as to the length of the program, schools with three-year programs would receive larger ammounts per student per year than would schools with four-year programs.

The Development of New Medical Schools: Five new medical schools are expected to open in the fall of 1971 and 5 more in the fall of 1972. By 1972, there will be a total of 113 medical schools with students enrolled. It seems likely that there will be as many as 120 medical schools by 1980.

Approximately 70 other schools have been proposed or considered seriously enough to warrant a formal inquiry to the AMA. In some instances, the body expressing interest is a college or university. In other instances, it is a medical society, a local chamber of commerce or simply an interested citizen or group of citizens in a community. It is difficult to project the number that will actually materialize as new medical schools. Assuming that the need for physicians continues to be great, as many as 20 more may be established eventually.

There are many areas in which new schools would be welcomed by the community. Some institutions would undoubtedly initiate the development of new schools if they were urged to do so. This would certainly be the case if special federal legislation were enacted to provide planning, development, construction and "start-up" operational funds for new medical schools.

Influx of Foreign Medical Graduates: Graduates of foreign medical schools augment substantially the number of physicians in the United States. As noted earlier, the growth rate of the physician population has exceeded that of the general population, a significant portion of this increase having been accounted for by the rising number of foreign medical graduates.

Given a U.S. population growth rate of 1 percent per year, it will require a net increase of 3,000 physicians per year to maintain present ratios of physicians-to-population. Graduates from American medical schools have averaged 8,000 per year in recent years. Physician deaths per year have been approximately 4,000. A net increase of about 4,000 per year could thus be expected, relying on U.S. trained physicians alone. However, the actual net increase in the physician population has averaged about 8,000 per year over the past 8 years. Analysis indicates that an additional 4,000 physicians per year are a result of immigration of foreign medical graduates. While the number of American graduates less the annual physician deaths have been enough to exceed slightly the growth rate of the general population, the major differential in growth rate of the physician population over the general population has been due largely to the influx of foreign graduates.

This trend is further illustrated by noting that during 1970, 32 percent of the new licenses granted in the United States were to foreign medical graduates.[12] Foreign medical graduates comprised 32 percent of the intern and resident population for the same period.

It is important to estimate the role of foreign medical graduates in the future and the effect of their increasing number upon the production of physicians in the U.S. Some students of physician manpower have ignored foreign medical graduates or assumed that their numbers will decrease substantially. For example, projections used by the Carnegie Commission Report have assumed that 13,000 foreign medical school graduates will enter the United States between 1968 and 1977.[1] None is projected to enter permanently thereafter. Similarly, projections in the Health Manpower Source Book of HEW[13] show the number of foreign medical graduates decreasing to 3,000 per year in 1972 and thereafter remaining at that level.

Evidence points, however, to increasing numbers during the coming years. Table 4 gives for the period 1960-1970: (1) the number of foreign medical graduates taking the Educational Council for Foreign Medical Graduates examination, (2) the number scoring 75 or higher, (3) the number certified by ECFMG since 1966, and (4) the number newly licensed each year in the United States. The table shows a substantial increase in the number taking the examination and of those achieving a passing grade during 1970. A study of ECFMG records indicates that there is normally a two- or three-year lag between passing the examination and the time of certification and acceptance into the pool of American physicians. An additional delay before formal licensure by one of the state boards of medical examiners is also characteristic. For both of these reasons, the pool of U.S. qualified foreign medical graduates is increasing and will be reflected in larger net increases in numbers of physicians in the years ahead.

For many individuals, the 1968 changes in immigration laws permit waiver of the requirement that a foreign medical graduate participating in the Exchange Visitor Program leave the United States for two years before returning in the permanent immigration quota. This modification may be expected to increase foreign medical graduates coming to this country. While the final regulations governing this program have not yet been published, preliminary indications are that few countries will refuse to release their physicians who would prefer to stay in the U.S.

Increasing numbers of foreign medical graduates are taking the ECFMG examination and increasing numbers are passing the test successfully. It can be expected that this will result in greater numbers coming to this country and becoming licensed to practice. Projections of the total physician population for the future should include an increment of foreign medical graduates each year at least equal to that experienced in the past few years. In fact, the figure of 4,000 per year addition of foreign physicians would better be increased to 5,000 or 6,000 per year for more valid projections.

TABLE 4: EXAMINATION, ECFMG CERTIFICATION, AND STATE LICENSURE OF FOREIGN MEDICAL GRADUATES, 1960-1970

Year	*Number Taking ECFMG Examination*	*Number Scoring 75 or Higher*	*Number Certified by ECFMG*	*Number Newly Licensed in U.S.*
1960	14,768	5,773	*	1,419
1961	14,222	5,381	*	1,580
1962	14,535	6,054	*	1,357
1963	19,130	6,043	*	1,451
1964	18,511	6,820	*	1,306
1965	18,337	7,724	*	1,528
1966	18,988	7,842	6,699	1,634
1967	19,188	8,820	5,364	2,157
1968	19,548	7,774	6,142	2,185
1969	22,598	8,127	4,686	2,307
1970	29,950	11,916	5,436	3,036

* *Number not available*

American Citizens in Foreign Medical Schools: The American citizen studying in foreign medical schools is a special problem. No accurate count is available, but it is estimated that more than 3,000 American citizens are studying medicine abroad. The largest numbers are at the Autonomous University of Guadalajara in Mexico and the University of Bologna in Italy. As the number of qualified applicants unable to be placed in American schools increases, it is likely that a growing number will study in foreign schools. Most of these will seek to return to American medicine. Performance of these students on ECFMG examinations has been disappointingly poor. The establishment of a transitional American clinical clerkship program would, perhaps, improve their performance.

Recent legislation in one state would enable American citizens studying abroad to bypass ECFMG certification. Other states are said to be considering similar action. Such changes would threaten the very structure of the Educational Council for Foreign Medical Graduates, an organization which has performed distinguished service since 1956. It has served as a mechanism to screen thousands of medical graduates from foreign countries who sought to come to this country for advanced training.

Problems confronting the Guadalajara and Bologna students have been the subject of intensive consideration. The newly established Commission on Foreign Medical Graduates has particularly addressed these problems and has made specific recommendations. The Council on Medical Education works actively with the Commission on Foreign Medical Graduates in the hope of establishing a satisfactory channel for these students to return to the mainstream of American medicine. Many problems must be solved before such channels can be effective. While efforts are being made, it is extremely important to the quality of care for the American public that the structure of the Educational Council for Foreign Medical Graduates be guarded and that AMA continue to support its task of screening to determine which foreign medical graduates are qualified to enter advanced graduate medical education in this country and to become involved in the care of patients.

RECOMMENDATION

It is recommended that the AMA reaffirm its support of the Educational Council for Foreign Medical Graduates in its task of insuring minimal standards for physicians trained in foreign schools and seeking graduate medical education in the United States, and intense efforts be continued to assist the repatriation of American students studying in foreign medical schools.

Impact of Graduate Medical Education: While medical school enrollments have been expanding and new schools are being developed, an increase in the numbers of independently practicing physicians cannot be anticipated immediately. A majority of the graduates of medical schools pursue graduate education. This period of training ranges from 2 to 6 years in length beyond graduation from medical school. In addition, a two year military obligation follows specialty training. The net impact is that the medical school enrollment statistics do not immediately reflect increased physician production. It should be noted, however, that the growing number of medical school graduates who elect further education are at the same time providing a substantial volume of medical services. Testimony to this fact is the growing dependence of the urban medical center upon the resident staff.

Need for Family Physicians: The physician shortage is one of geographic and specialty maldistribution as well as of numbers. The basic public need is for comprehensive personal care, a family physician. More physicians are being produced, but fewer are engaging in primary care practices. Recognizing the seriousness of this problem, the AMA has collaborated with several organizations to institute the family physician specialty. "The family physician is a personal physician oriented to the whole patient, who practices both scientific and humanistic medicine. He may provide care for only one member of the family, but more often does so for several or all members. Usually he himself provides care in more than one of the traditional specialty fields of medicine, and he coordinates the care obtained by referral or consultation with other physicians and allied health personnel. He assumes responsibility for the patient's comprehensive and continuing health care and in effect serves as captain of the health team."[14] Success of the family physician requires significant reorientation of medical education and change in the attitudes of the medical community. The impact of a successful program upon public care will probably not be felt for a decade. Substantial financial resource and incentive are essential. It is important that rapid development of the family physician receive the solid support of the profession. To assure the development of family physician educational resources, some have suggested legislative enactment by the state. The intent is laudable, but the principle of legislative control of the educational process has undesirable implications and should be guarded against.

RECOMMENDATION

It is recommended that the AMA continue to give all possible support to the effort of developing strong educational programs for the production of family physicians and make every effort to solicit the working cooperation of the practicing medical profession.

V. Reasonable Expectations for Physician Production

Present Rate of Growth: The net increase in physician numbers has averaged about 8,000 per year over the past 8 years and exceeded 9,000 in 1970. The number of graduates of American medical schools has been increasing slowly over the past 10 years and exceeded 8,000 for the first time in 1970. Increases in first year enrollment in recent years will cause the rate of growth to become even greater. With 10 new medical schools due to open within the next two years and most existing schools planning expansion of their enrollments, very substantial increases may be anticipated. The expected first year enrollments of 114 projected medical schools exceed 12,000 in 1972, 13,000 in 1973, and 13,600 in 1974. These estimates are conservative and will probably be exceeded. Osteopathic colleges are also increasing in number and size; two new osteopathic colleges have been started in the past two years. The total number of D.O. graduates was 432 in 1970 and is expected to be 475 in 1971. In excess of 600 graduates are projected for 1975, 900 for 1980.

There were approximately 334,044 M.D.'s and 14,000 D.O.'s for a physician total of 348,044 at the close of 1970.[15] A physician-to-population ratio of approximately 165 to 100,000 was reached at that time. If the 1970 net increase of 9,000 M.D.'s is sustained over the next 5 years, about 380,000 M.D.'s and 15,000 D.O.'s, a total of 395,000 physicians can be expected by December 1975. Given the population growth rate of 1 percent, the physician-to-population ratio at the end of 1975 will exceed 180 per 100,000.

Carnegie Commission Physician Production Goals: The Carnegie Commission states an acute shortage of physicians, but makes no estimate of the size of shortage.[1] The Commission Report recommends a major increase in the number of students accepted in American medical schools throughout this decade and that the matter be reevaluated in 1978 to determine what efforts will be required during the 1980's. The Carnegie projections call for an increase in "active"* physicians (M.D. and D.O.) per 100,000 population from 146.8 in 1967 to 161.4 in 1977, and 182.1 in 1987. The Commission further recommends "that the number of medical school entrants should be increased to 15,300 by 1976 and to 16,400 by 1978. The expansion in the number of medical school entrants should be accomplished through an average expansion of about 39 to 44 percent in existing and developing schools by 1978 with 9 new schools accounting for about 900 to 1,350 entrant places adding another 8 to 13 percent."[1]

It was noted earlier that the Carnegie Commission projections assume that only 13,000 foreign medical graduates will permanently enter the United States between 1968 and 1977, an average of 1,300 per year, and that no foreign medical graduates will enter permanently thereafter. A previous section of this report explains why there is strong reason to believe that the number of foreign medical graduates entering the country will increase in the future rather than decrease. The current rate of entry into practice is approximately 4,000 per year rather than 1,300 per year. For this one reason alone, the Carnegie Commission projections appear to be too low for both the total number of physicians and for the physician-to-population ratio.

The goals established for medical school enrollments are reasonable and attainable. If anything, they are too modest, and with special effort they could easily be exceeded. Carnegie Commission recommendations call for 9 new medical schools to provide from 900 to 1,350 new entering places. There are already 13 new medical schools in a planning phase of development, with more in prospect. However, it is not certain how quickly they will be able to grow to full class size.

AAMC Bicentennial Program: The Association of American Medical Colleges has proposed a "bicentennial anniversary program" for the expansion of medical education. One of its objectives is "to increase the nation's pool of M.D.'s by a minimum of 50,000 over those required to meet population growth by 1980 to permit achieving an overall physician-to-population ratio of not less than 175 to 100,000 and to make it possible for every state to have at least 100 M.D.'s per 100,000 people."[2] In order to reach this goal, it is proposed that there should be 15,000 entering places in the nation's medical schools by 1976. This goal would be met by the development of 12 new medical schools

*NOTE: The term "active" physician is defined as the total number of fully active physicians in the fifty states. All physicians outside the U.S. are omitted. The resident and intern are also omitted. All physicians in federal service are included. In other respects it is consistent with the agreements of the 1963 Conference on Physician Statistics.

and the expansion of entering classes of existing medical schools by a minimum of 15 students each. The AAMC projections show a leveling off of first-year enrollments at 15,078 after 1974.

The AAMC goal of 175 physicians to 100,000 population will easily be exceeded without unusual effort. Simple maintenance of the existing rate of increase of physician population will yield a physician-to-population ratio of 180 to 100,000 or greater by the end of 1975. Comparatively, the AAMC proposal projects the 15,000 level of first-year enrollment two years earlier than the Carnegie Commission, but the Carnegie Report estimates a continuing increase in first-year enrollment to 21,600 by the year 2002. The AAMC projections call for holding the enrollments at 15,000, at least until the end of 1980.

Goal of the National Planning Association: The Center for Priority Analysis of the National Planning Association projects a need of 402,000 physicians in the U.S. by 1975.[16] This figure, reported in a Department of Labor special study entitled Manpower Requirements for National Objectives in the 1970's, assumes that some program of national health insurance will exist for the general U.S. population by 1975. It further assumes that 1975 insurance coverage for all will approximately equal the coverage purchased privately by more affluent population sectors in 1965. By analyzing the utilization of physician services of the 1965 covered groups, a projection is made to the 1975 expanded population. It appears to be logically related to demand, and is realistic when compared to physician production growth trends. As noted earlier, our present annual growth rate in numbers of physicians will bring us to 395,000 by the end of 1975. This could easily be increased to the National Planning Association's goal of 402,000 with some additional effort.

The Supply of Qualified Medical School Applicants: In spite of greater medical school enrollment capacity, the number of applicants to medical schools continues to grow at an even greater rate. In 1968, there were 21,117 applicants and 9,863 first-year students. In 1969, there were 24,465 applicants and 10,401 first-year students. In 1970, there were 25,400 applicants and 11,360 first-year students.

The quality of college students in general and of medical school applicants in particular is improving as judged by academic averages and Medical College Admission Test scores.[17] It is difficult to determine how many of the applicants who were not accepted were "qualified" for admission, but the number is substantial and increasing. Based on the Medical College Admission Test scores, it is estimated by AAMC that approximately 75% of the applicant pool is qualified for admission to medical school.[2] If this assumption is correct, there were over 5,975 "qualified" applicants not accepted in 1968; 7,948 in 1969; and 7,690 in 1970.

The size of the applicant pool in the future is expected to build until 1980 at least. The U.S. Office of Education estimates that the number of individuals receiving baccalaureate degrees in the U.S. will increase from 754,000 in 1969, to more than 900,000 by 1975, and 1,000,000 by 1980.[18] Even though the percentage of 22-year-olds receiving baccalaureate degrees applying to medical school is declining (from 3.9% in 1960 to 3.2% in 1970), the growth in total numbers receiving degrees more than offsets this decline.

AAMC staff estimates that "the number of individuals applying to medical schools might well increase to approximately 28,000 by 1975 and to 34,000 by 1980."[2] If these estimates are realized, there would be 21,000 "qualified" applicants in 1975 and 25,500 in 1980. Both figures are well beyond the increases in enrollment projected by both the Carnegie Commission Report and the AAMC Bicentennial Program.

Is an Excess of Physicians Possible?: With ten years of public and professional awareness of a shortage of physicians, it is difficult to envision an excess of physicians in our society. Some believe that the advent of national health insurance will increase the demand for health care services by at least 25 percent. Coupled with increasing affluence of the population and increasing expectations for highly sophisticated medical care, many feel it will be impossible to meet the demand for more physicians during the 20th century in spite of any conceivable expansion of medical education. There are also those who believe that it is our national duty to educate physicians in such quantity that we will be able to supply medical care to a large part of the underdeveloped nations of the world and that this will only effectively happen after an obvious surplus of physicians has been achieved in the United States. In contrast, such well known figures as Ginzberg[19] and McNerney[20] have argued that we already have enough physicians and that if our health care delivery system were organized differently, no more physicians would be needed.

Regardless of philosophic viewpoints, the rate of growth of the physician population, including the influx of foreign trained physicians, exceeds the rate of growth of the general population by a substantial margin. Under these conditions, it is logical to conclude that the need for physicians, real or perceived, will be met some time in the future. The disproportion in the rate of supply to the rate of growth of the population will result in fulfillment of need.

The difficulty lies in identifying when this point will be achieved. It is compounded by the rapid changes occurring in the health field. It therefore seems undesirable to attempt long-range projections beyond the limit of five years. The immediate question is whether the current efforts will be sufficient to meet needs in a reasonable period of time or whether additional intensification of effort is necessary.

Should the Numbers, Location, and Type of Medical Schools be Limited?: The Carnegie Commission Report and the AAMC Bicentennial Program suggest limitation in the number of new medical schools to be established. The Carnegie Report calls for 9 new University Health Science Centers and recommends that these should be limited to metropolitan areas with a population of 350,000 or more. It also advocates establishment of 126 Health Education Centers geographically distant from University Health Science Centers, but affiliated with the nearest appropriate University Health Science Center. Health Education Centers would confine their education to internship and residency programs, allied health education, continuing education and some clinical instruction for M.D. candidates from medical schools in other areas. The Carnegie Commission proposals call for definite planning of locations of both the University Health Science

Centers and the Health Education Centers. By implication, restriction would be placed upon establishing such institutions in places other than those deemed advisable by a national planning body.

The AAMC Program assumes the development of 12 new medical schools and recommends that institutions be invited to submit proposals on a competitive basis for federal grant support. These proposals would be evaluated by competent site visiting teams and be subject to the judgement of an appropriate advisory council. This council, presumably federal, would determine which should receive federal grant support. "Judgements would be based on institutional strength available, facilities, and faculty together with prospects for their further development, geographic location, the degree of innovation in the educational program, community interest and support and rapidity with which the prospective program could be developed." (Similar decisions in the past have been made by the Liaison Committee on Medical Education through its role of providing letters of reasonable assurance to the U.S. Office of Education for all new developing institutions.) It could be implied that the number of schools would be limited by the judgements of the advisory council. Such a group could inhibit or support efforts to develop new schools depending on perception of national need by regulating the flow of federal funds.

In the past, the determination of the number and location of new medical schools has been primarily a matter of local initiative by a university, a medical society, or a community. After interest has been expressed and proposals developed by a local community, consultation is provided by representatives of AMA or AAMC acting on behalf of the Liaison Committee on Medical Education. The role of the accrediting bodies is largely one of reasonable encouragement and support with the initiative for the development of the new institution the responsibility of the local group. Under these circumstances the location and number of new schools has been unpredictable. Of the new medical schools now in development, about half are in communities which probably would not have been selected by the Carnegie Commission and presumably not by a national planning body. It has been quite common for local initiative to develop in rather unexpected places with the result that plans for a new medical school were pushed to fruition. Whether this is good or bad for medical education in the long run remains to be seen. However, local initiative and support are extremely important factors in the successful development of any medical school.

RECOMMENDATION

It is recommended that AMA support the development of new medical schools in locations where there is demonstrated local initiative and ample commitment of financial support.

VI. Increasing the Production of Black and Other Minority Group Physicians

The inadequate representation of minority groups in the medical profession and in medical school enrollments is of concern to the AMA. Recent reports state that minority groups account for 12 percent of the U.S. population, but for only 2.2 percent of the physician population.[21, 22, 23] The proportion of minority students is only slightly better, 2.8 percent. Since 1966, medical schools have begun attempts to expand the number of disadvantaged or minority students.[21] Medical schools, excluding Howard and Meharry, had a twofold increase in first-year black students for 1969-1970 compared to the 1968-1969 academic year. The Association of American Medical Colleges, in the 1971-1972 Edition of Medical School Admissions Requirements in the United States and Canada, reports that minority group students accounted for 9.5 percent of first-year class enrollment for the 1971-1972 academic year. This compares with slightly under 5 percent for the 1968-1969 academic year.

The AMA, together with the National Medical Association, the Association of American Medical Colleges, and the American Hospital Association, participated in an Inter-Association Committee concerned with expanding educational opportunities in medicine for Blacks and other minority students. The following are the major conclusions and recommendations of the group.[22]

1. Major efforts should be focused on the problem of retention of minority students in programs which prepare students for careers in the medical profession. The most important factors in retention during premedical education are the availability of financial aid at the college level and the student's perception of its availability at the medical school level.

2. Similarly, the main barrier today for minority students in attending medical schools is the inadequacy of financial aid. Coincident with increasing enrollment of minority students in medical schools, federal government and other sources of funds have been decreasing. The need is urgent for reversing this trend and establishing better mechanisms for utilizing available funds.

3. Another critical factor in retention and recruitment of minority students in medical education programs is the provision to students of accurate information and counseling on the medical profession. Counseling should be directed to those efforts which will help the student to fully realize his potential and to gain the confidence needed to pursue a career in medicine.

4. Existing medical school class size presents the major obstacle for increased production of physicians with the result that many capable students are not permitted to study medicine. Increases in class size are needed to meet the health care needs of the country for the minority community as well as the general population.

The long-term goal adopted by the Inter-Association Committee is to achieve a representation from minority groups in the physician population at least equal to the minority group general population percentage. A short-term objective is to increase the representation of minorities in medical schools to 12 percent by 1975-1976.

Project Seventy-Five is being led by the National Medical Association. The thrust of this action program is to accomplish a 12 percent enrollment of minority students by 1975, a year which is also the 75th Anniversary of NMA. "Project 75 is a program designed to discover, develop and sustain college students who are in quest of a career in medicine. Additionally, those who are post-baccalaureate will be sought out for orientation to opportunities to study medicine. It is offered as a service of the National Medical Association, its local affiliates around the country, in conjunction with existing facilities and programs. The program is conducted by physicians, medical students, college students and lay persons interested in health manpower development, both public and private. Included among the services available are: counseling and guidance, tutorial and academic reinforcement programs, referrals to appropriate sources of financial aid. Faculty Institutes and Conferences are held throughout the United States on a regional basis, both types of activity being geared to presentation of problems, sharing information about solutions being used in various areas, and discovering new problems and solutions regarding increasing the number of black and other minority students in medical school."[23] This program requires the full support of the medical profession and the general public.

VII. Increase in the Production of Women Physicians

Women account for 7 percent of all physicians. For the 1969-1970 academic year, 9 percent of total medical school enrollment were women; women accounted for 8.7 percent of those graduated. It is important to note that women doctors tend to select areas of medicine in which shortages are particularly acute. While women are found in every branch of medicine, most are interested in psychiatry, pediatrics, obstetrics-gynecology, internal medicine, family medicine, and public health. AMA believes there is a need for more women physicians.

Only remnants of past discrimination still remain. Every medical school in the United States and Canada now admits women. Claims are occasionally made of medical schools adhering to quotas on the numbers of women admitted, but these complaints cannot be substantiated. Nationally, the ratio of women admitted to those applying has been about equivalent to male enrollment figures during the last decade. Any discrepancies generally favor women.

Women seeking a career in medicine face discouragements and handicaps. Many claim that the young woman is not adequately encouraged to seek scientific and professional careers in our American society but is rather discouraged at home and in school. The relatively small number of young women preparing for medical careers and applying to medical schools would support this inference.

Young women in medical school face the same financial problems of the young men, but in accentuated forms. American families are less likely to sacrifice for the education of a female child than for a male. Furthermore, incurring a large financial burden of educational loans frequently means taking a negative dowry to a possible marriage.

The young woman, enrolled in medical school, has a higher risk of attrition. The differential in attrition rates is due to non-academic reasons. Such differences may diminish as medical school curricula becomes more flexible and as our society becomes more supportive of full professional opportunities for women.

After graduation, the woman doctor who wants to combine a medical career with that of wife and mother must reconcile two very demanding full-time careers. A satisfactory adjustment can usually be made in practice, but the internship and residency years, oriented toward the young man who is either single or who has a wife to provide child care, are serious problems. Few house officers can afford full-time domestic help, and few day-care centers are available. Part-time internships and residencies for women have been made available only in recent years. The AMA House of Delegates authorized and encouraged the development of part-time internships in 1965 and part-time residencies in 1969. Preliminary evidence indicates that the number of women taking advantage of these opportunities is increasing steadily.

Available data suggest that because of the multiple demands on the married woman physician, average productivity of the female doctor is 10 to 30 percent less than the male, and only partially compensated by the female's longer life. Enthusiastic general support for women in medicine is likely only when the capacity of medical schools is greatly increased and the demands for more medical services are less urgent.

Changes are necessary to increase the number of women physicians. Some of them may already be underway since the number of women admitted to medical school in the fall of 1970 showed a substantial increase to 11 percent.[17] Specific changes necessary are: (1) increased financial aid to all medical students, including women, (2) continuing emphasis on flexible scheduling during medical school years, (3) flexible scheduling during the internship and residency years, and, especially (4) a social environment more conducive toward the full utilization of talented women in many careers. Many more young girls will need to be given a different set of goals for their adult lives. They must be encouraged to prepare themselves for medicine and to apply to medical school. The development of day-care centers, tax relief for the cost of domestic assistance for working mothers, and the rapidly evolving changes in the national climate of opinion concerning roles of men and women will all assist in the production of more women physicians.

VIII. Financial Support

Most medical schools, like most of higher education, are having very serious financial problems. A substantial increase in physician output is dependent on the medical schools' ability to expand production capabilities. Many look to the medical school for help in improving delivery of health care. The load of medical service provided by the medical school is

constantly expanding. These increased expectations come at a time when medical schools are severely limited in their ability to respond, primarily for financial reasons. A few medical schools are not only unable to take on new responsibilities, but face the danger of being unable to remain in operation. The reasons for this distress of medical schools are complex.

The best figures available depicting medical school expenditures are for the eleven-year interval beginning in 1958 and ending June 30, 1969. Expenditures increased an average of 15 percent per year and were disproportionately dependent on research and research training programs, heavily financed by the federal government. In 1968, the rate of growth of these federal programs was sharply reduced. The cutback has continued. Because schools have long-term commitments to personnel and because of the importance of many of these programs to the school's own objectives, much of the costs have been shifted to the medical school.

This period is also marked by continuing general inflation. The medical school has suffered the same distress as all service organizations and has encountered special problems because of the unusually high rate of inflation in health care. With the advent of Medicare, Medicaid, and many other new government-supported programs of patient care, the medical school has been pressured on all fronts to assume more responsibility for service programs. Most schools have attempted to respond but find themselves dealing with agencies which reimburse only the actual audited cost of services or even less. As time goes on, these agencies demand that educational costs, including the costs of training of house staff, be eliminated from patient-care charges. While the scope and costs of operation have been rapidly escalating, the sources of educational funds have diminished.

Medical schools aim at developing diversified sources of income. Attempts are made to augment income as fast as required to meet inflation and the development of new programs. The income from tuition and fees has lagged far behind the increase of cost even though the tuition in many private schools is approaching $3,000 per year. Private schools have depended primarily on endowment income, tuition, research and training grants and income from patient-care activities. Public schools, usually with little endowment, have received the bulk of their income from state appropriations. Increasingly, state appropriations are being made to private medical schools in an effort to keep them solvent. Endowment income, over the past decade, has grown at a rate of 6 percent per annum. This is less than one-half the average increase of medical school costs. Endowments have yielded poor income in the last two years.

Research and training grants require schools to expend all income (except overhead) for the specific purposes of the grant. The "overhead" has provided a share of general income which helps pay a part of such costs as light, heat, electricity, maintenance, etc. For the decade previously mentioned, the overhead increased at a rate of about 20 percent per year. In 1968, this income began to drop in direct proportion to the cutback in sponsored programs.

Only income from patient-care activities has increased faster than the average medical school costs. The income is generated from: (a) the faculty through clinical practice plans, and (b) reimbursement from teaching hospitals. Substantial in a few schools, this is not a basic source of income for the majority. It does grow in importance.

While income from medical services provided by the faculty and by the institution is likely to grow, such income is unlikely to be more than a partial solution to the problem of financing medical schools. Purchasers of patient care are demanding careful accounting and are paying actual costs (or less). Medical schools have little opportunity to finance educational activities from service income. Further, the practice of medicine by medical school faculty has long been a potential source of disagreement between the faculty and area physicians. This diminishes as the shortage of medical services becomes more critical. Such practice should always remain secondary to the primary educational function of the faculty and the school; to depend on clinical practice of the faculty to provide a major portion of medical school support would be to exploit faculty and patients as well as to pervert the function of the school.

The most illustrative figures demonstrating the financial plight of medical schools are shown in two comparatively small categories of their income reported in 1970 for 1968-1969. Many medical schools list an income from miscellaneous University income and reserves which has shown an annual growth rate of about 13 percent for the past several years. In 1968-1969, the rate increased to 16 percent. For one school this amount was $8,529,674! Another item is one labeled miscellaneous medical college reserves. One school was forced to spend $1,596,343 of its reserves.

How are medical schools to be supported? An acceptable answer requires that medical schools must be enabled to substantially increase the number of graduates, to increase the number of students in the allied health professions, and to have enough "venture capital" to enable them to participate effectively in efforts to change methods of education. In addition, medical schools must be able to continue to provide leadership in biomedical research, to contribute in a substantial way to experimentation and evaluation of new methods of providing health services, and to develop and test at least some of the new instruments which are needed if the public is to get its share of the best available health services.

State governments have provided the bulk of support for over one-half of our medical schools and, in increasing numbers, partial subsidy for private schools. However, many states are facing bankruptcy because of skyrocketing costs. It is unlikely that tuition can be increased enough to contribute substantially to the solution of serious financial problems of medical schools. Even if tuition were to be raised to levels approaching the actual cost of education and if student assistance in the form of loans were greatly augmented, it is unlikely that the public would accept such a proposal as appropriate. For most students, but particularly for minority students and for women, such a scheme would inhibit rather than encourage the seeking of careers in medicine.

Private giving to the nation's medical schools has increased substantially over the past decade, although not in pace with costs. A large portion of the growth in private support has been due to the ability of state-supported schools to capture private gifts. Thus, the actual gain in private giving has been less widespread than might be expected. Furthermore, the 1969-1970 years have been very unfavorable ones for business and industry, and it can be expected that the pattern of giving to educational institutions will reflect such hard times. Likewise, foundations have had less income to disperse and can be expected to be more conserving of capital in years of recession.

As the solution to their problems, the medical schools have turned toward the federal government, asking that substantially all of the costs of increasing the production of physicians be borne by the federal government, as well as the cost of rescuing the endangered schools. The Carnegie Commission Report calls for the federal government to meet more of the costs of medical education. It is difficult to see, with the possible exception of state government, where else the necessary funds can be found. If the federal government assumes some of the other current financial burdens of the state governments such as welfare, or relinquishes some of its currently used sources of taxation, state governments might be willing to assume a substantially larger portion of the cost of medical education.

In summary, the support of physician production is caught at the turbulent interface of local, state and federal jurisdictional policy. A medical school should be financed by income from many diverse sources. A school is in the best position to determine its programs of education if it is not dependent on any one source of income. No matter how diversified its income, a school is not able to determine its own future unless income is adequate. Today's schools tend to have rather diversified incomes but, for at least one-half of them, this income is too limited for them to do the tasks which clearly need to be done.

RECOMMENDATION

It is recommended that AMA reaffirm its policy of encouraging medical schools to generate financial support from multiple and diverse sources in order to preserve reasonable self-determination.

The problem of financial assistance for the medical student is separate and not directly related to the problems of supporting the medical school. Rising tuitions are an accepted fact. Student costs of living increase at a painful rate. Demands are made that the underprivileged, whether they be the Blacks, women or other identifiable groups, be given a real chance to develop their abilities. If these opportunities are to be provided, such students cannot be expected to pay a larger portion of the cost either directly or through deferred loans. While loans may be considered a partial source of funds, the student cannot be expected to mortgage his future indefinitely in

order to obtain medical training. Furthermore, the future physician's sense of public responsibility might well be diminished by the pressures of a large indebtedness. An augmented program of combined student loans and scholarships is necessary.

RECOMMENDATION

It is recommended that AMA support a combined and increased program of loans and scholarships to assure adequate student financial support in a period of rapidly rising educational costs.

Graduate medical education, though a part of the total educational process, may be considered as a separate problem. The stipends for interns and residents have usually been provided by the hospitals and have been derived largely from payments by patients for medical care. The instructional costs for these students have been carried in part by the hospital, in part by volunteer donated activities of physicians, and in part by medical schools through their paid faculty. Recent changes in payments for patient care suggest that these educational costs may not be indefinitely derived from income of patient care. Large intern and resident salaries further compound the problem. So far, no other method has been identified to pay these costs. Logically, since the internship and residency are part of the continuum of medical education, graduate programs and their costs should be largely the responsibility of the medical school and the community. However, unless a new method of funding is found, American medicine faces a crisis in graduate education.

Continuing medical education grows in importance as the science of medicine becomes more complex and more dependent on newly developed skills and instruments. Ultimately, the opportunity for the continuing education of the physician must be built into his daily activities and in the long run the costs must be borne by the patient or the public. As a short-term problem, however, it is much more important to make it possible for each practicing physician to update and maintain his skills and to encourage him to do so than it is to delay, awaiting the ideal source of financial support. While the amounts of money are smaller than those involved in the support of undergraduate medical education and of graduate medical education, the importance of developing and maintaining a high quality of continuing medical education programs is great.

RECOMMENDATION

It is recommended that AMA encourage governmental support of continuing medical education recognizing the need to transmit rapidly new medical knowledge and to assure adequate programs to insure the maintenance of professional competence.

IX. Physician Support Personnel

Utilization of related health manpower has important impact for the number of physicians needed. As the leading edge of medical knowledge and practice has advanced, new areas of service potential have been established and new occupations have emerged.[24] Modern medical history is one of translating physician functions into new medical support roles. This development has contributed substantially to the quality, quantity, and availability of care. Cognizance is taken of the present and potential role of related health personnel in the extension of physicians' services. This potential is touched upon briefly in this report; a more extensive statement on allied health manpower is presently being developed.

Physician's Assistant: The "physician's assistant" is a manpower innovation intended to extend the services of the physician. The AMA House of Delegates (C-70) defined the "physician's assistant" as a skilled person qualified by academic and practical training to provide patient services under the supervision of a licensed physician who is responsible for the performance of that assistant. The historical antecedent for the "physician's assistant" is the corpsman in the military service. The Armed Services have long been noted for their effective use of practically trained manpower in the performance of a specific task.

Some confusion exists concerning the appropriate role and contribution of the "physician's assistant" to civilian health manpower. Three general types of activity can be identified: (1) programs to expand the role of the nurse in the delivery of basic medical care, (2) projects aimed at developing new technical assistance personnel for specific medical specialties, and (3) programs to produce a broad-spectrum "physician's assistant" capable of relating to general patient care activities. It is the last category that has been most often at the center of controversy.

Each of these approaches has a corresponding educational pattern. Programs aimed at expanding the role of the nurse require additional education beyond the basic R.N. preparation. Those projects to develop technical assistance personnel for particular medical specialties are emerging in two-year community-college type curricula which provide the graduate with an associate degree. Programs to produce a generalist "physician's assistant" have the greatest variability of educational pattern. Many are administered as satellites in the medical school setting. The guidelines for education standards proposed by the Task Force on Physician's Assistants of the AAMC's Council on Academic Societies, for example, would fit only 3 of about 17 operational programs. A perspective of the scale of development of these projects is helpful. A study of projects known to be in operation in the summer of 1970 was made by the AMA Department of Health Manpower to obtain the number of persons enrolled and graduated during the five year period 1965 through 1970.[25] This period was chosen because most all the known projects had begun admitting students in 1965 or later. Thirteen of the 17 projects identified as operational responded reporting an enrollment of 350 students for the five-year period. The total graduated for all five years was 58.

In December, 1969, the AMA House of Delegates strongly endorsed the concept of innovation and experimentation in the development of new categories of health manpower.[26] At that time, the House adopted a set of guidelines developed to assist in the implementation and evaluation of new manpower programs. These guidelines stress the importance of careful planning on many dimensions; for example, delineation of a job description, principles of supervision, analysis of the need, determination of employment opportunities, effects upon related occupations, projected production costs, opportunities for mobility, etc. The application of these guidelines to the generalist type "physician's assistant" programs has highlighted the need for judicious planning and guidance. Utilizing these guidelines, the Council on Health Manpower is working with individual medical specialty societies to develop functional models which represent a consensus of the society's membership as to the need for and desirable role of physician support personnel in that specialty. These models will then provide a baseline against which other groups contemplating development or training of a new health occupation can evaluate or modify their plans. Recently the Council on Health Manpower approved a description of the role and function of the "physician's assistant" for the primary physician which had been developed jointly by representatives of the American Academy of Family Physicians, the American College of Physicians, and the American Society of Internal Medicine. The Council on Medical Education is currently engaged in developing "Essentials" for the eventual accreditation of training programs for such personnel.

Of concern is the adoption of licensing laws for the allied health professions (both existing and emerging) which would further aggravate the fragmented health care services. Care is needed to avoid locking emerging health occupations, such as the "physician's assistant," into rigid roles by legislative regulation before sufficient documentation is made of the need for and roles of such workers. Only accumulated experience in the utilization of such personnel will provide a data base of sufficient breadth to evaluate their relationships with other health workers and general acceptance by the medical profession. Accordingly, the AMA and a number of other national groups have called for a moratorium on state licensure of any additional health occupations to allow sufficient time for study of proposed alternatives to the present system and development of a workable overall approach to credentialling of health occupations.

RECOMMENDATION

It is recommended that AMA reaffirm its support of existing health occupations and innovation in developing new physician support personnel.

X. Maintaining Physician Competence[27]

Physician competence is a fundamental element of quality medical care and likewise, medical education is basic to competence. Medical education's goal is the production of physicians equipped to provide optimal care for the public. The ultimate evaluation of an educational system is the effectiveness of its products. Questions raised about quality of care and professional competence are ones of primary interest to medical education. The growing problem of malpractice suits gives added impetus to this issue.

Traditional Approaches for Establishing Competence

Licensure:[28] Licensure programs for health practitioners were originally developed by the states as a method for assuring public protection, and the boards of medical examiners continue to provide a basic safeguard through their activities. Licensure involves the establishment and enforcement of minimal standards for entering and remaining in practice. Licensure systems stipulate educational and performance requirements for initial entry. However, most licensure laws evolved before the explosion in scientific and technological knowledge and provide no means for insuring continuing competence of the licensee. Standards for licensing inevitably lag behind advances in knowledge and practice. As a result, irrelevant educational requirements may become firmly entrenched and solidified in state statutes. Evaluation of the examining instruments used by licensing bodies indicates a basic lack of a frame-of-reference for a definition of competence.

In summary: (1) Licensure insures that practitioners have met basic educational and statutory requirements. (2) Possession of a license in itself does not directly bear upon professional competence. (3) In its bureaucratic context, licensure lags well behind the state of current practice. (4) As an organizational process, it is costly and difficult to implement and continuous surveillance of standards is negligible. Given these and other deficits,[23] periodic licensure by the individual could be expected to do very little, if anything, to assure maintenance of professional competence.

Certification: For many years, medical specialty boards have worked with the problem of determining competence. The goal of their work is to provide recognition for the physician who has attained a level of competence that qualifies him as a specialist in a field of medical knowledge and practice. The certification process is voluntary. The organizational bodies are comprised of physicians of the appropriate specialty area. These specialty boards are to be commended for providing an important service to the public and the profession by elevating the standards for professional practice in the medical specialties.

The candidate for certification must first complete a course of prerequisite training. This phase of graduate medical education must be approved by a Residency Review Committee comprised of representatives appointed by the Council on Medical Education of the American Medical Association, the appropriate medical specialty board, and in some instances the corresponding medical specialty society. Following completion of his education, the individual may then make application for admission to the certification process. Characteristically, the certification process consists of evaluation of the candidate's application, evaluation of references, constructing and administering extensive objective tests to determine the candidate's knowledge of the medical specialty area, and an intensive oral examining process. Based upon these three sources of data, the board then makes a determination whether the candidate is qualified to be certified as a specialist.

There are several weaknesses in the certification process as a means of assessing competence.[29, 30] The conventional certification exams focus primarily on the candidate's ability to recall. More basic is the fact that these examinations have been initiated without attempting first to define competence in a specialty area. A third problem is the strong chance factor which operates in the examining process, e.g., the range of variability among examiners, (a) the material selected for testing, (b) their ability to communicate, (c) their perception of competence, and (d) their approach to evaluation. In light of these and other basic defects, it is doubtful that a periodic duplication of the process as it exists would substantially promote quality of patient care. The secondary effect of relicensure or recertification in bringing an external discipline to continuing medical education would be the only gain. Further, the certifying process logistically is quite complicated and expensive. It requires a large number of senior volunteer physicians, expensive facilities, transportation costs and other such factors. Recertification on a profession-wide scale might be expected to have a definite impact upon the cost of medical care.

In summary, licensure as a means of assessing continuing competence is minimally effective. Comparatively, certification has been more effective in providing a system of recognition for specialist's competence. As noted, there are major shortcomings in this process also. Several medical specialty boards have underway developmental efforts addressed at improving its reliability and validity. New approaches are necessary which provide practical means of assessing and maintaining competence throughout the lifetime of the physician. The focus of both licensure and certification is at the point of career entry. Neither addresses the maintenance of competence over time.

Emerging Efforts

Peer Review: Peer review is the evaluation by practicing physicians of the quality and efficiency of services ordered or performed by other practicing physicians. Peer review programs take many forms and review activities seek a variety of objectives. While the organization, location, technique and impact of peer review efforts differ substantially, their common goal is to improve the quality of patient care.

The American Medical Association has long recognized the need for formal review mechanisms and has consistently encouraged their establishment. Report C of the Council on Medical Service adopted by the House of Delegates at the 1970 Clinical Convention summarized the current attitude of the AMA:

> "The Council on Medical Service knows of no greater challenge facing the profession today than to secure universal acceptance of the (peer) review concept as the most meaningful method for creating a public awareness of medicine's efforts to assure high quality of health services at a reasonable cost, slowing the rate of escalation in health care charges, stimulating health insurance organizations to make broader protection available to more people, and retaining professional control in patient-physician fiscal and economic relationships."[31]

Within hospital medical staffs the concept of peer review -- medical care evaluation -- as one means of achieving better patient care is well established. Tissue review, utilization review, medical audit and similar functions have been a part of medical staff responsibilities for decades. Through an analysis of the care actually being provided to hospital patients, unusual patterns of practice are identified and appropriate action taken to effect necessary improvements. Physician education is essential to effective review.

Medical care evaluation programs are similar in most hospitals; a review committee is responsible to the executive medical staff committee. Cases chosen for review may be selected from a random sample of patient histories, from an analysis of statistical data generated from abstracts of all patient records, or from a combination of both techniques. Methods for implementing the conclusions reached through the evaluation process reflect the educational emphasis and potential of medical staff peer review programs, e.g., a personal discussion with a single physician, or a continuing education program for the entire staff in response to an identified common trend or problem.

Efforts to develop a broad community base for hospital medical care evaluation have been initiated in several communities. These activities have promise for increasing the effectiveness of institutional review programs and further improving the level of patient care.

Many state and county medical societies have created peer review programs. Previously mentioned community-wide programs designed for improving inpatient review are generally being conducted by medical societies. Coordinating all of the peer review efforts of a locality -- medical practice analysis -- is a medical society responsibility requiring considerable planning, staffing, and involvement. In many areas, review efforts are fragmented, with coordination still to be accomplished. Focusing community-wide efforts through the medical society provides a mechanism which can unify review programs and assure that the component review functions are being performed effectively. The societies have an additional responsibility for assuring the quality and appropriateness of ambulatory care.

The communications media have emphasized fiscal aspects of medical society review programs. This can be misleading and inappropriate. The advent of third party financing programs created the need for a professional panel to advise on the appropriateness of physicians' fees. This rather limited concept of fee review, however, is not to be considered an end in itself. In a number of medical societies, it has simply opened the way to more meaningful review activities.

Integral relationships have been established between medical societies and various financing organizations in the development of review programs. The carriers have a responsibility to assure that the money they disburse is being well spent and the medical profession recognizes that through the carriers they have access to important data providing insight into the

pattern of medical care in a community. Medical society review programs can be and are educational. At times highly individualized situations are resolved and at other times permanent and ongoing improvements in medical care are achieved through educational programs. As facilities and interest continue, the scope of peer review will broaden and its effectiveness and potential increase.

Self-Assessment: Self-assessment may be defined as a systematic inventory made by the individual of his acquaintance with and access to currently valid biomedical knowledge and procedures. This inventory is made utilizing a uniform methodology and criteria provided by his peers in like practice. It is a method for assisting the practicing physician in understanding, maintaining, and improving his competence. It is seen as a possible method of accomplishing the goals of recertification. At present, 13 medical specialty organizations are implementing self-assessment programs.

The educational value of self-assessment should be stressed over its potential significance for accomplishing the goals of relicensure or recertification. It is a method of continuing education which begins with diagnosis of need and utilizes evaluation as a positive educational experience for the benefit of the learner. A survey of areas of knowledge deficits is encouraged in a non-punitive climate. The value of self-assessment as a measure of competence is its focus upon assessing biomedical knowledge. It is a systematic inventory of currently valid knowledge. The inference can be made that assessment should provide the individuals with an estimation of his grasp of knowledge. To date, studies of concurrent validity are not available. As newer techniques of testing clinical competence are developed, these will be valuable additions to self-assessment.

Relationship of Self-Assessment and Peer Review: Self-assessment complements peer review activities: (a) Peer review gives an evaluation of what the physician *does*, his pattern of practice in the delivery of care. Self-assessment contributes insight into what the physician *knows*, his fund of knowledge. (b) Peer review is structured around the *geographic setting* where the physician practices. Self-assessment complements by focusing upon the *subject area* of the physician practice.

Coupled together, both operating with a primary educational orientation, they offer a basic frame-of-reference for developing an integrated program for the evaluation and maintenance of professional competence.

Two broad components to continuing competence can be considered. The first is the currency of the physician's *fund of knowledge*. The second component is the physician's characteristic *pattern of practice*. The first component requires assessment of what the physician *knows*, while the second requires assessment of what the physician *does*. A view of professional competence within this frame-of-reference provides insight into the significant roles self-assessment and peer review can play as innovative methods of assessing these dual aspects of competency. Both self-assessment and peer review are oriented to the practical competence of the physician throughout his lifetime of practice.

The practicing physician is motivated to become and remain competent in order to provide his best service for the patient. Basic educational preparation and to an increasing extent continuing medical education are the primary vehicles for assisting the physician in maintaining competence. The AMA historically has had as a primary goal the improvement of professional medical competence and it is recognized that new efforts and methods are periodically required to achieve this basic professional goal. The establishment of the AMA Physician's Recognition Award to encourage systematic participation in continuing medical education exemplifies such efforts.

RECOMMENDATION

It is recommended that AMA reaffirm its responsibility to provide leadership and assistance in developing the resources and incentives necessary for maintaining professional competence. The AMA should assume leadership in developing methods of professional accountability related to maintenance of competence which provide for an appropriate balance between the need for public credibility and the protection of professional dignity.

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Summary of Recommendations

Subject	Page
1951 Policy on Physician Production	3
It is recommended these principles from the 1951 "Policy of the AMA Regarding the Production of Physicians" be reaffirmed.	
Expanding Enrollments	11
It is recommended that the AMA continue to use its influence to encourage all reasonable expansion of student enrollments in existing medical schools.	
Support of ECFMG	15
It is recommended that the AMA reaffirm its support of the Educational Council for Foreign Medical Graduates and its task of insuring minimal standards for physicians trained in foreign schools and seeking graduate medical education in the United States.	
Need for Family Physicians	16
It is recommended that the AMA continue to give all possible support to the effort of developing strong educational programs for the production of family physicians and make every effort to solicit the working cooperation of the practicing medical profession.	
Location of New Medical Schools	20
It is recommended that AMA support the development of new medical schools in locations where there is demonstrated local initiative and ample commitment of financial support.	
Multiple Sources of Financial Support for Medical Schools	26
It is recommended that AMA reaffirm its policy of encouraging medical schools to generate financial support from multiple and diverse sources in order to preserve reasonable self-determination.	

Subject	Page
Student Loans and Scholarships	27
It is recommended that AMA support a combined and increased program of loans and scholarships to assure adequate student financial support in a period of rapidly rising educational costs.	
Support for Continuing Medical Education	27
It is recommended that AMA encourage governmental support of continuing medical education recognizing the need to transmit rapidly new medical knowledge and to assure adequate programs to insure the maintenance of professional competence.	
Significance of Physician Support Personnel	29
It is recommended that AMA reaffirm its support of existing health occupations and innovation in developing new physician support personnel.	
Maintenance of Professional Competence	34
It is recommended that AMA reaffirm its responsibility to provide leadership and assistance in developing the resources and incentives necessary for maintaining professional competence. The AMA should assume leadership in developing methods of professional accountability related to maintenance of competence which provide for an appropriate balance between the need for public credibility and the protection of professional dignity.	